Listing of the Claims

1. (Previously Presented) An optically addressable display comprising:

a projection device including,

a mechanism to create emissions having plural polarizations defining a corresponding number of color channels; and

a data encoder to apply data for each of the color channels to corresponding ones of the plural polarizations; and

a screen including,

a plurality of pixels for producing a color display; and

a plurality of receptors including at least one receptor for each of said plurality of pixels, said plurality of receptors activating said pixels depending upon which, if any, of the plural polarizations is received.

2. (Original) The display according to claim 1, wherein said data encoder receives said emissions of plural polarizations simultaneously and applies data simultaneously for each of the multiple color channels.

3. (Previously Presented) The display according to claim 1, wherein the mechanism to create emissions further comprises:

a source producing visible or non-visible spectrum emission; and

a polarization filter to sequentially polarize said visible or non-visible emissions to produce said emissions of plural polarizations as sequentially polarized emissions; wherein said data encoder sequentially applies data for the multiple color channels on a channel-by-channel basis to the sequentially polarized emissions.

4. (Original) The display according to claim 3, wherein said polarization filter is a multi-segment filter, each segment corresponding to a different one of multiple polarization phases.

5. (Original) The display according to claim 4, wherein said multi-segment filter comprises a rotating filter disposed in the path of said emissions to sequentially polarize said emissions through the multiple polarization phases.

6. (Original) The display according to claim 3, wherein said polarization filter is a rotating linear filter that sequentially polarizes said emissions through multiple polarization phase peaks.

7. (Previously Presented) The display according to claim 6, wherein each pixel comprises a multi-physical element pixel for displaying multiple colors, and wherein different ones of said multiple colors are encoded by a bands near different ones of said multiple polarization phase peaks.

8. (Original) The display according to claim 3, wherein said polarization filter comprises a circular polarization filter.

9. (Original) The display according to claim 3, wherein said data encoder comprises an array of light masks each corresponding to one or more of said receptors, each of said light masks selectively blocking or permitting said emissions to pass to a corresponding one or more of said receptors based upon the data.

10. (Original) The display according to claim 3, wherein said data encoder comprises an array of digital light processing mirrors, each corresponding to one or more of said receptors, each of said digital light processing mirrors selectively reflecting said emissions away from or toward a corresponding one or more of said receptors based upon the data.

11. (Original) The display according to claim 10, wherein said sequentially polarized emissions comprises a single beam of emissions having a diameter that completely encompasses said array of digital light processing mirrors.

12. (Original) The display according to claim 11, comprising a separate mirror for each of said pixels and a corresponding one of said receptors.

13. (Original) The display according to claim 12, wherein

each pixel is one of multiple colors;

said polarization filter sequentially polarizes said emissions into one of multiple polarization states, a separate polarization state corresponding to each the multiple colors; and

each receptor is responsive to only one of said multiple separate polarization states.

14. (Original) The display according to claim 13, wherein, each of said digital light processing mirrors is positioned to reflect light away from its corresponding receptor in response to a data indicating that its corresponding pixel should be off.

15. (Original) The display according to claim 14, wherein said polarization filter is a rotating linear filter that sequentially polarizes said emissions through multiple polarization phase peaks.

16. (Original) The display according to claim 15, wherein each of said receptors is positioned adjacent receptors responsive to bands near different ones of said multiple polarization phase peaks.

17. (Original) The display according to claim 15, further comprising a light absorber to absorb light reflected away from said receptors.

18. (Original) The display according to claim 13, further comprising an integrating rod to provide uniformity to the emissions produced by said source.

19. (Original) The display according to claim 3, further comprising a projecting lens after said data encoder to project said sequentially polarized emissions toward said plurality of receptors.

20. (Original) The display according to claim 1, each of said plurality of pixels including multiple corresponding receptors, each of said multiple corresponding receptors responding to a different polarization state of said emissions of plural polarizations, each of said plurality of pixels producing one of multiple colors as a display.

21. (Original) The display according to claim 1, wherein each of said plurality of pixels comprises a plurality of light emitting diodes.

22. (Original) The display according to claim 21, wherein each of said pixels includes light emitting diodes of at least three different colors.

23. (Original) The display according to claim 1, wherein said data encoder comprises an LCD shutter device.

24. (Original) The display according to claim 23, wherein said LCD shutter device receives said emissions of plural polarizations simultaneously and applies data simultaneously for all of the color channels on a pixel-by-pixel basis.

25. (Currently Amended) A method of encoding color data to activate an optically addressable display including a plurality of pixels, the method comprising the steps of:

at a projection device:

producing emissions of different polarizations;

for each pixel, applying data to each of said emissions of different polarizations by selectively passing said emissions of different polarizations to said pixels;

at the optically addressable display:

at each pixel,

<u>responding to each of said emissions of different polarizations with a corresponding receptor; and</u>

producing a different display for each of said emissions of different polarizations when ~~received~~<u>responded to by the corresponding receptor</u>.

26. (Original) The method of encoding according to claim 25, wherein said step of producing comprises:

generating an emission in a visible or non-visible spectrum; and

alternating polarization of said emission.

27. (Original) The method of encoding according to claim 26, wherein said generating step comprises generating a laser emission.

28. (Original) The method of encoding according to claim 26, wherein said alternating step comprises filtering said emission.

29. (Original) The method of encoding according to claim 26, wherein said alternating step comprises filtering said emission through one of a multi-segment and linear filter.

30. (Original) The method of encoding according to claim 29, wherein said alternating step comprises alternating polarization between one of multiple different phases.

31. (Currently Amended) ~~The method of encoding according to claim 25,~~ A method of encoding color data to activate an optically addressable display including a plurality of pixels, the method comprising the steps of:

at a projection device:

producing emissions of different polarizations;

for each pixel, applying data to each of said emissions of different polarizations by selectively passing said emissions of different polarizations to said pixels;

at the optically addressable display:

at each pixel, producing a different display for each of said emissions of different polarizations when received wherein said step of applying data comprises selectively shuttering said emissions of different polarizations.

32. (Currently Amended) ~~The method of encoding according to claim 25,~~ A method of encoding color data to activate an optically addressable display including a plurality of pixels, the method comprising the steps of:

at a projection device:

producing emissions of different polarizations;

for each pixel, applying data to each of said emissions of different polarizations by selectively passing said emissions of different polarizations to said pixels;

at the optically addressable display:

at each pixel, producing a different display for each of said emissions of different polarizations when received wherein said step of applying data comprises selectively reflecting said emissions of different polarizations toward or away from a corresponding pixel.

33. (Currently Amended) ~~The method of encoding according to claim 25,~~ A method of encoding color data to activate an optically addressable display including a plurality of pixels, the method comprising the steps of:

at a projection device:

producing emissions of different polarizations;

for each pixel, applying data to each of said emissions of different polarizations by selectively passing said emissions of different polarizations to said pixels;

at the optically addressable display:

at each pixel, producing a different display for each of said emissions of different polarizations when received wherein said step of applying data applies data to the emissions of different polarizations simultaneously.

34. (Original) The method of encoding according to claim 25, wherein said step of applying data applies data to the emissions of different polarizations sequentially.

35. (Previously Presented) A method of encoding color data to activate an optically addressable display, the method comprising the steps of:
at a projection device:
defining multiple color channels with emissions of multiple polarization states; and
applying data, on a pixel-by-pixel and channel-by-channel basis to said emissions by permitting emissions to reach a pixel in the optically addressable display indicated to be on by the data; and
at the optically addressed display:
filtering to make each set of commonly colored display elements responsive to a different polarization state than other sets of commonly colored display elements.

36. (Currently Amended) An optically addressable display comprising:
a projection device, including,
means for directing emissions of plural polarization states toward an array of pixels; and
means for selectively passing emissions of each of the plural polarization states according to applied data; and
a screen, including,
at each pixel,
receptor means responsive to each of the plural polarization states; and
means for actively producing plural color displays, one for each of the plural polarization states.

37. (Currently Amended) An optically addressable display comprising:
at each pixel,
means for receiving emissions of a plurality of polarizations, each of the plurality of polarizations corresponding to a separate color data channel wherein data is encoded onto each of the separate color data channels; and
~~at each pixel,~~ means for actively producing plural color displays, one for each of the plurality of polarizations of received emissions.